## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Uri Wilensky, Walter Stroup

Title: Distributed Agent Network Using Object Based Parallel Modeling Language

to Dynamically Model Agent Activities

Serial No.: 10/016,192 Filed: December 12, 2001

Examiner: David Silver Group Art Unit: 2123

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Austin, Texas August 15, 2007

Board of Patent Appeals and Interferences United States Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450

## REPLY BRIEF UNDER 37 CFR § 41.41

Dear Sir:

Applicants submit this Reply Brief pursuant to the Examiner's Answer mailed in this case on June 15, 2007. It is believed that no fees are due in connection with the filing of this Reply Brief, however, the Commissioner is authorized to deduct any amounts required for this Reply Brief and to credit any amounts overpaid to Deposit Account No. 502264.

The basic thrust of the Examiner's rejection analysis is that Applicants are limited to the appealing the centralized <u>coordination</u> aspect of the server computing device, and that Applicants have improperly relied on post-final amendments that attempted to clarify that the centralized <u>simulation</u> aspect of the server computing device. On this point, Applicants agree that the post-final amendments were not entered, but respectfully submit that Ulrich nonetheless fails to anticipate the present invention's requirement of a server computing device that collects remote agent inputs and <u>coordinates</u> the interaction of the remote agent inputs to efficiently simulate a complex system of remote and independent inputs, thereby generating interactive simulation information based upon the interaction of the remote agents. *See*, *e.g.*, claim 1 (reciting a server computing device which includes "an object-based parallel modeling language component that collects object control node information and control instructions corresponding to each of the remote agents of the plurality of remote agents and coordinates the interaction of the remote

agents based upon the collected object control node information and control instructions") (emphasis added).

Even accepting that the claims require a centralized coordination aspect of the servercomputing device, Applicants respectfully submit that Ulrich fails to disclose the centralized "coordination" aspect of the claims. Indeed, there is simply no reference whatsoever in Ulrich to "coordinating" the interaction of remote agents at Ulrich's hub processor 104, much less that the Ulrich's hub server coordinates the interaction of the remote agents based upon the collected object control node information and control instructions! To establish a prima facie case of anticipation, the Examiner has the burden of pointing out where each and every element of the claimed invention, arranged as required by the claims, are found in the Ulrich reference, either expressly or under the principles of inherency. See generally, In re-King, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986); Lindemann Maschinenfabrik GMBH v. American Hoist and Derrick, 730 F.2d 1452, 1458, 221 USPQ 481, 485 (Fed. Cir. 1984). This the Examiner has not done. Rather than centrally coordinating agent interaction at the hub server 104, Ulrich discloses a network of computerized remote exercise machines, each of which includes a "processor which generates an interactive simulated environment" using a shared "environmental database [that] is stored and executed on each machine". Ulrich Patent, col. 2, lines 26-28; col. 8, lines 28-37 (During the simulation, the same environment database is stored and executed on each machine. Each computer is responsible for updating the environment so that its user sees herself (or himself) in relation to all other networked users. The desired simulation typically is selected by agreement of all interested users on the network prior to the start of the group simulation. After selection, that environment's database is transferred between computers (over the link 94) so that each computer can execute the same environment and participate in the group simulation.).

In short, Ulrich discloses that databases are generated, updated, and exchanged by each remote exercise machine. This distributed functionality and exchange of databases by Ulrich's remote exercise machines can in no way be fairly characterized as meeting claim 1's requirement that the OBPML component at the server computing device "coordinates the interaction of the remote agents based upon the collected object control node information and control instructions." Nor does Ulrich's database swap scheme meet claim 8's requirement of "coordinating the interaction of the remote agents at the server computing device based upon the

input data and the control instructions, each set of control instructions corresponding to the set of control instructions of each remote agent of the plurality of remote agents."

While there are other assertions in the Examiner's answer brief that merit correction, Ulrich's failure to disclose a central server for coordinating the interaction of remote agents based on the collected object control node information and control instructions is sufficient to overcome the anticipation rejection, and therefore Applicants respectfully submits that the Examiner's rejections of Claims 1 – 14 are unfounded and should be reversed.

FILED ELECTRONICALLY August 15, 2007 Respectfully submitted,

/Michael Rocco Cannatti/

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